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EXAMINER

REGO, DOMINIC E

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/582,200	Applicant(s) SITTLER ET AL.	
	Examiner DOMINIC E. REGO	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson (US 2005/0052341) in view of Ella et al. (US Patent #6,751,470).

Regarding claim 1, Henriksson teaches a radiocommunications device capable of operating on at least two transmission frequency bands and at least two reception frequency bands of a first predetermined standard, the device comprising: first means for implementing communications according to a first predetermined standard, and second means for implementing communications according to a second predetermined standard (Paragraph 0041) except for at least partially using at least one of said frequency bands.

However, in related art, Ella teaches at least partially using at least one of said frequency bands (*Col 1, lines 12-65, especially lines 41-55, Ella teaches in a mobile phone that is capable of operating in both PCS1900 and DCS 1800 bands, the PCS1900 Tx frequencies (1850-1910 MHz) and the DCS1800 Rx frequencies (1805-1880 MHz) overlap in the frequency range of 1850-1880 MHz. In the front-end design*

such as that shown in FIG. 1, the isolation between PCS 1900 Tx and DCS 1800 Rx components is only about 20 to 30 dB).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Ella to Henriksson for improving the isolation in an antenna system to add diodes or transistors to the Rx lines of the problematic Rx paths when the transmission frequency band and the receiving band overlap due to cross-talk (See Ella, Col 2, lines 18-40).

Regarding claim 10, the combination of Henriksson and Ella teach all the claimed elements in claim 1. In addition, Henriksson teaches the radiocommunications device, wherein said second standard belongs to the group including a walkie-talkie-type technique or the "Bluetooth" standard (Paragraph 0041).

Regarding claim 11, the combination of Henriksson and Ella teach all the claimed elements in claim 1. In addition, Henriksson teaches the radiocommunications device, wherein said transmission frequency bands are 825-849 MHz and 880-915 MHz, and said reception frequency bands are 869- 894 MHz and 925-960 MHz (Paragraph 0041).

Regarding claim 12, the combination of Henriksson and Ella teach all the claimed elements in claim 11. In addition, Henriksson teaches the radiocommunications device, wherein the frequency band used by said second communications implementation means is 868-870 MHz, for transmission and reception (Paragraph 0041).

Regarding claim 13, the combination of Henriksson and Ella teach all the claimed elements in claim 11. In addition, Henriksson teaches the radiocommunications device, wherein the frequency band used by said second communications implementation means is 9902-928 MHz, for transmission and reception (Paragraph 0041).

Regarding claim 14, the combination of Henriksson and Ella teach all the claimed elements in claim 1. In addition, Henriksson teaches the radiocommunications device, wherein it includes user-system interface elements specific to the implementation of communications according to said second standard (This is inherent in dual mode or multimode mobile terminal. Also see Henriksson, Paragraph 0041).

Regarding claim 15, Henriksson teaches a radiocommunications device comprising:

at least two transmission frequency bands and at least two reception frequency bands of a first predetermined standard; a single antenna; and a shared digital processor, which implements communications through the single antenna according to a first predetermined standard and implements communications through the single antenna according to a second predetermined standard (Paragraphs 0039-0041) except for at least partially using at least one of said frequency bands.

However, in related art, Ella teaches at least partially using at least one of said frequency bands (*Col 1, lines 12-65, especially lines 41-55, Ella teaches in a mobile phone that is capable of operating in both PCS1900 and DCS 1800 bands, the PCS1900 Tx frequencies (1850-1910 MHz) and the DCS1800 Rx frequencies (1805-*

1880 MHz) overlap in the frequency range of 1850-1880 MHz. In the front-end design such as that shown in FIG. 1, the isolation between PCS 1900 Tx and DCS 1800 Rx components is only about 20 to 30 dB).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Ella to Henriksson for improving the isolation in an antenna system to add diodes or transistors to the Rx lines of the problematic Rx paths when the transmission frequency band and the receiving band overlap due to cross-talk (See Ella, Col 2, lines 18-40).

3. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson (US 2005/0052341) in view of Ella et al. (US Patent #6,751,470) and further in view of Shelhammer et al. (US Patent #7,039,358).

Regarding claim 2, the combination of Henriksson and Ella fail to teach the radiocommunications device, wherein said second communications implementation means use the same frequency band for transmission and reception.

However, in related art, Shelhammer teaches the radiocommunications device, wherein said second communications implementation means use the same frequency band for transmission and reception (Col 4, line 62-Col 5, line 9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Shelhammer to Henriksson and

Ella, in order to communicate with other device by using push-to-talk or walkie-talkie or Bluetooth technology.

Regarding claim 3, the combination of Henriksson, Ella, and Shelhammer teach all the claimed elements in claim 2. In addition, Henriksson and Shelhammer teach the radiocommunications device, wherein said same frequency band used for transmission and reception is chosen (See Shelhammer, Col 4, line 62-Col 5, line 9) and Henriksson teaches transmission and reception frequencies are 824-894 MHz or 880-960 MHz, Ella teaches so as to include a portion in which said device is capable of transmitting according to said first standard and a portion in which it is capable of receiving according to said first standard (*Col 1, lines 12-65, especially lines 41-55, Ella teaches in a mobile phone that is capable of operating in both PCS1900 and DCS 1800 bands, the PCS1900 Tx frequencies (1850-1910 MHz) and the DCS1800 Rx frequencies (1805-1880 MHz) overlap in the frequency range of 1850-1880 MHz. In the front-end design such as that shown in FIG. 1, the isolation between PCS 1900 Tx and DCS 1800 Rx components is only about 20 to 30 dB*).

4. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson (US 2005/0052341) in view of Ella et al. (US Patent #6,751,470) and further in view of King et al. (EP 1026908).

Regarding claim 4, the combination of Henriksson and Ella fail to teach the

radiocommunications device wherein said first and second communications implementation means comprise at least some processing means.

However, in related art, King teaches the radiocommunications device wherein said first and second communications implementation means comprise at least some processing means (Paragraphs 0011-0016).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of King to Henriksson and Ella, in order to process the encoded audio bit stream (King, Paragraph 0011).

Regarding claim 5, the combination of Henriksson, Ella, and King teach all the claimed elements in claim 4. In addition, King teaches the radiocommunications device, wherein said shared processing means belong to the group including: digital processing means; filtering means; amplification means; and modulation and/or demodulation means (Paragraphs 0011-0016).

5. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson (US 2005/0052341) in view of Ella et al. (US Patent #6,751,470) in view of King et al. (EP 1026908) and further in view of Connor (US 2004/0203353).

Regarding claim 6, the combination of Henriksson, Ella and King fail to teach the radiocommunications device, wherein, said shared processing means include digital processing means and storage means, containing data for command and control of said

digital processing means, according to said first standard and according to said second standard.

However, in related art, Connor teaches the radiocommunications device, wherein, said shared processing means include digital processing means and storage means, containing data for command and control of said digital processing means, according to said first standard and according to said second standard (Paragraph 0013).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Connor to Henriksson, Ella, and King, in order to process the encoded audio bit stream.

Regarding claim 7, the combination of Henriksson, Ella, King, and Connor teach all the claimed element in claim 6. In addition, both King and Connor teach the radiocommunications device, wherein said command and control data for said second standard of implement digital communications (See King, Paragraph 0037 and Connor, Paragraph 0013).

Regarding claim 8, the combination of Henriksson, Ella, King, and Connor teach all the claimed element in claim 6. In addition, both King and Connor teach the radiocommunications device, wherein said command and control data for said second standard of simulate analog communications (See King, Paragraph 0037 and Connor, Paragraph 0013).

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson (US 2005/0052341) in view of Ella et al. (US Patent #6,751,470) and further in view of Segal (US Patent #7,031,280).

Regarding claim 9, the combination of Henriksson and Ella fail to teach the radiocommunications device, wherein said first predetermined standard belongs to the group including GSM, GPRS and UMTS.

However, in related art, Segal also teaches the radiocommunications device, wherein said first predetermined standard belongs to the group including GSM, GPRS and UMTS (Col 2, line 48-Col 3, line 5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Segal to Henriksson and Ella in order to provide or facilitate voice communication services or data or messaging services over cellular wide area networks.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson (US 2005/0052341) in view of Ella et al. (US Patent #6,751,470) and further in view of Garcia (US 2005/0146432).

Regarding claim 12, the combination of Henriksson and Ella fail to teach the radiocommunications device, wherein the frequency band used by said second

communications implementation means is 868-870 MHz, for transmission and reception (Paragraph 0041).

However, in related art, Garcia also teaches the radiocommunications device, wherein the frequency band used by said second communications implementation means is 868-870 MHz, for transmission and reception (Paragraph 0018).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Garcia to Henriksson and Ella, in order to communicate with other device by using push-to-talk or walkie-talkie or Bluetooth technology with a certain frequency band.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson (US 2005/0052341) in view of Ella et al. (US Patent #6,751,470) and further in view of Garcia (US 2005/0146432).

Regarding claim 16, the combination of Henriksson and Ella teach all the claimed elements in claim 15. In addition, Henriksson teaches wherein the shared digital processor uses the same frequency band for transmission and reception to implement communications according to the second predetermined standard and wherein the same frequency band is chosen (*Paragraph 0041: Henriksson teaches transmission and reception frequencies are 824-894 MHz or 880-960 MHz*) except so as to include a portion in which the device is capable of transmitting according to the first

standard and a portion in which the device is capable of receiving according to the first standard.

However, in related art, Garcia teaches so as to include a portion in which the device is capable of transmitting according to the first standard and a portion in which the device is capable of receiving according to the first standard (Paragraph 0018).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Garcia to Henriksson and Ella, in order to communicate with other device by using push-to-talk or walkie-talkie or Bluetooth technology.

9. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson (US 2005/0052341) in view of Ella et al. (US Patent #6,751,470) in view of Connor (US 2004/0203353).

Regarding claim 17, the combination of Henriksson and Ella fail to teach the radiocommunications device and further comprising: a storage device containing data for command and control data of the digital processor, according to the first standard and according to the second standard.

However, in related art, Connor teaches the radiocommunications device and further comprising: a storage device containing data for command and control data of the digital processor, according to the first standard and according to the second standard. (Paragraph 0013).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Connor to Henriksson and Ella, in order to process the encoded audio bit stream.

Regarding claim 18, the combination of Henriksson, Ella, and Connor teach all the claimed element in claim 17. In addition, Connor teaches the radiocommunications device, wherein the command and control data for said second standard implement digital communications (Paragraph 0013).

Regarding claim 19, the combination of Henriksson, Ella, and Connor teach all the claimed element in claim 17. In addition, Connor teaches the radiocommunications device, wherein the command and control data for the second standard simulate analog communications (Paragraph 0013).

Response to Arguments

10. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOMINIC E. REGO whose telephone number is (571)272-8132. The examiner can normally be reached on Monday-Friday, 8:30 am-5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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